

REMARKS

The Office Action mailed March 8, 2005 has been carefully reviewed and the foregoing amendments have been made in consequence thereof.

Claims 1-20 are now pending in this application. Claims 1-20 stand rejected.

The objection to Claim 11 under 37 CFR 1.75(a) is respectfully traversed. Specifically, Claim 11 has been amended to depend from Claim 10 and as such, Claim 10 provides antecedent basis for "said gap." Accordingly, for at least the reasons set forth above, Applicants respectfully request the objections to Claim 11 be withdrawn.

The rejection of Claims 1-20 under 35 U.S.C. § 102(b) as being unpatentable over Young (U.S. Patent No. 6,581,386) is respectfully traversed.

Young describes a combustor 10 for a gas turbine engine. The combustor includes an annular dome 20 positioned at an upstream end of a combustion chamber 22 defined therein. A plurality of baffles 40 are mounted in a plurality of respective dome apertures 34 to facilitate protecting the combustor dome. Each baffle includes an integrally joined outer tube 42 and an inner tube 48. A heat shield or splashplate 46 is integrally joined to a downstream end of the outer tube, and an annular flare cone 54 is integrally joined to an aft end of the inner tube by an annular ligament 62 such that an annular aft channel 60 is defined between a divergent portion of the flare cone and a divergent portion of the heat shield. The inner tube is spaced radially inwardly from the outer tube such that an annular forward channel 58 is defined therebetween. A row of holes 64 extends through the annular ligament and couples the forward and aft channels together in flow communication such that flow discharged from the holes is discharged obliquely outwardly with respect to a centerline of the combustor for cooling of both the flare cone and the heat shield.

Claim 1 recites a method for operating a gas turbine engine including a combustor, the combustor including a combustion chamber and a centerline, wherein the method comprises "directing compressed airflow through a unitary combustor dome assembly that

includes a splashplate and a unitarily formed flare cone, such that at least a portion of the compressed airflow is channeled axially downstream and substantially parallel to the combustor centerline through at least one cooling passage that is formed between the flare cone and the splashplate for cooling of the dome assembly.”

Young does not describe nor suggest a method for operating a turbine engine as is recited in Claim 1. More specifically, Young does not describe nor suggest directing compressed airflow through a unitary combustor dome assembly that includes a splashplate and a unitarily formed flare cone, such that at least a portion of the compressed airflow is channeled axially downstream and substantially parallel to the combustor centerline through at least one cooling passage formed between the flare cone and the splashplate. Rather, in contrast to the present invention, Young describes directing cooling air through a passage formed between the flare cone and the splashplate, wherein the passage is oriented obliquely to the combustor centerline. Accordingly, Claim 1 is submitted to be patentable over Young.

Claims 2-5 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-5 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-5 likewise are patentable over Young.

Claim 6 recites a combustor for a gas turbine engine, wherein the combustor comprises “a dome assembly comprising a unitary body comprising a splashplate, a centerline, a flare cone, and at least one cooling passage formed within said body between said flare cone and said splashplate for discharging cooling air in a direction that is substantially parallel to said combustor centerline for cooling at least a portion of said dome assembly.”

Young does not describe nor suggest a combustor that includes a cooling passage formed in the unitary body, between the splashplate and the flare cone, for discharging cooling air in a direction that is substantially parallel to said combustor centerline for cooling at least a portion of said dome assembly. Rather, in contrast to the present invention, Young describes a combustor including a passage formed between the flare cone and the splashplate,

wherein the passage is oriented obliquely to the combustor centerline. Accordingly, Claim 6 is submitted to be patentable over Young.

Claims 7-12 depend, directly or indirectly, from independent Claim 6. When the recitations of Claims 7-12 are considered in combination with the recitations of Claim 6, Applicants submit that dependent Claims 7-12 likewise are patentable over Young.

Claim 13 recites a gas turbine engine comprising a combustor comprising an annular dome assembly, wherein the combustor dome assembly comprises “an air swirler and a unitary body extending circumferentially around said air swirler, said unitary body comprising a splashplate, a flare cone, and at least one cooling passage formed therebetween, said at least one cooling passage for discharging cooling air therefrom in a direction that is substantially parallel a centerline of said dome assembly for cooling at least a portion of said combustor dome assembly.”

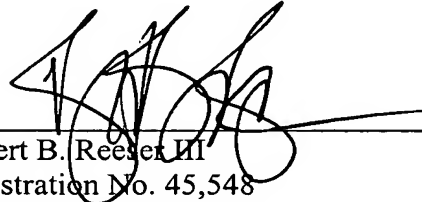
Young does not describe nor suggest a gas turbine engine including a combustor that includes at least one cooling passage formed between the splashplate and the flare cone for discharging cooling air therefrom in a direction that is substantially parallel to said combustor centerline for cooling at least a portion of said dome assembly. Rather, in contrast to the present invention, Young describes a combustor including a passage formed between the flare cone and the splashplate, wherein the passage is oriented obliquely to the combustor centerline. Accordingly, Claim 13 is submitted to be patentable over Young.

Claims 14-20 depend, directly or indirectly, from independent Claim 14. When the recitations of Claims 14-20 are considered in combination with the recitations of Claim 14, Applicants submit that dependent Claims 14-20 likewise are patentable over Young.

For at least the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1-20 be withdrawn.

In view of the foregoing remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Robert B. Reeser III', is written over a horizontal line.

Robert B. Reeser III
Registration No. 45,548
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070